

Program #2

Due: Tuesday Feb 25th, 2014 at 11:30PM

<i>Instructor</i>	Dr. Stephen Perkins
<i>Office Location</i>	ECSS 4.609
<i>Office Phone</i>	972-883-4522 (you can call me during office hours)
<i>Email Address</i>	stephen.perkins@utdallas.edu
<i>Office Hours</i>	Tuesday and Thursday after class (9:45AM to 10:30AM) and by appointment

<i>TA</i>	Indu Priya Kodali ixk130230@utdallas.edu Clark Center's CN1.202D Monday 10AM - 1PM Wednesday 5PM - 8PM
-----------	--

Purpose

Demonstrate the ability to create and execute a C++ program that utilizes complex data structures to perform searching and sorting.

Assignment

Write a program that will perform sorting and searching across records stored in a file.

The program should first query the user for a filename. The program should open the file and read the first entry. It defines the number of records in the file. The program should read each record and store it into memory. Each record in the file will have sets of three lines. Each set consists of: *lastname*, *firstname*, and *birthdate*.

Your program should prompt the user for a command:

Searching - The user should be able to supply a search value and your program should print any entries that start with that value. You should search all first names, last names, and birthdates. There may be multiple values returned.

Sorting - The user should be able to choose to print the data in its original unsorted form, sorted by first name, or sorted by last name.

Quit – Exit the program

Code must be well commented.

Deliverables

You must submit your homework through ELearning. You must include your .cpp files and your input file.

Notes

No late homework is accepted.

Input File Format

The input file is a text file that contains a number of records. The first line in the file contains an integer that describes how many records the file contains. After the first line, you will have sets of three lines.

Each set consists of:

Lastname
Firstname
Birthdate

An example file would be:

5
Smith
John
01/15/1971
Jones
Ed
06/23/1980
Burns
Sally
03/03/1938
Sinatra
Frank
12/12/1915
Clarkson
Kelly
04/24/1982